International Journal of Research in Medical Sciences
Chundru S et al. Int J Res Med Sci. 2021 Apr;9(4):1209-1211
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012

DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20211378

Case Report

Sarcomatoid carcinoma of the colon: a rare diagnosis

Swaroopa Chundru*, Manjunath Nandennavar, Shashidhar V. Karpurmath, Veerendra Angadi

Department of Medical Oncology, Vydehi Medical College and Research Centre, Bengaluru, Karnataka, India

Received: 17 February 2021
Accepted: 15 March 2021

***Correspondence:**
Dr. Swaroopa Chundru,
E-mail: swaroopa.chandru@gmail.com

ABSTRACT

Report of a rare colon tumor treated successfully using conventional chemotherapy regimen.

Keywords: Carcinosarcoma, Immunohistochemistry, Biphasic tumors, Conventional chemotherapy

INTRODUCTION

Sarcomatoid carcinoma (SC) of the colon is an extremely rare neoplasm with poor prognosis. It is a biphasic tumor showing both epithelial and mesenchymal-like differentiation. However, its carcinomatous nature is widely recognized. SC is rare in the gastrointestinal tract, commonest sites being oral cavity, oropharynx and esophagus.[1] The occurrence of SC in colon is an extremely rare entity and as per our literature review, only 23 cases have been reported worldwide till date.[2,3] To our knowledge, no Indian case study has been published.

We report here, a case of primary colonic SC. The morphological and immunohistochemical analyses has been discussed along with special emphasis on therapeutic implications, and the observed prompt treatment response with a conventional carcinoma chemotherapy regimen in our patient.

CASE REPORT

A 51-year-old lady, known hypertensive on medication, presented with complaints of lower abdominal pain on and off for 2 months. On further evaluation, CT scan abdomen and pelvis showed mixed density solid cystic mass measuring 7.0×5.0 cm seen in the left adnexa and the mass was fixed to sigmoid colon with bowel wall thickening. CA125 and CEA levels were within normal limits and colonoscopy showed no growth or ulceration.

Patient underwent total abdominal hysterectomy (TAH), removal of left tubo-ovarian mass along with sigmoid colon resection outside. Post-op sections from colonic mass on microscopy showed clusters of epithelioid cells with abundant pink cytoplasm, round to oval, pleomorphic vesicular to hyperchromatic nuclei with prominent nucleoli and moderate pink cytoplasm with areas of necrosis and hyalinization. The mitotic count was >15/50 HPF with atypical mitotic figures, resected margins were free and lymph nodes reactive. Ovary, fallopian tube, appendix had unremarkable findings concluded as gastrointestinal tumor (GIST) – epithelioid variant. However, the diagnosis of GIST was ruled out by immunohistochemistry (IHC) as the tumor was CD117, CD34 negative.

Patient came here for further management and the histopathology blocks were reviewed and staging workup was done. Post-op PET CT scan showed metastatic disease with multiple well defined peripherally enhancing lesions with central cystic component involving pelvic cavity. It was superior to urinary bladder with significant perilesional fat stranding possibly arising from the sigmoid colon with significant local invasion to adjacent bowel loops with serosal and peritoneal metastatic deposits. Block review showed sections from colon with

intact mucosal wall, showed a spindle and epithelial cell tumor with areas of necrosis, with scattered multinucleate cells as described in Figures 1 - 3 below. Review IHC done on the block showed Pan CK and vimentin positive and negative for CD117, DOG1, CD34, SMA, calretinin suggesting sarcomatoid carcinoma colon.

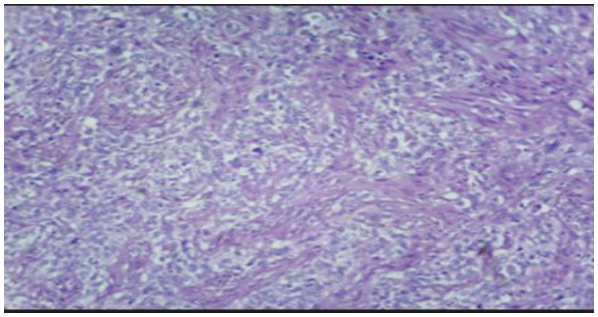

Figure 1: Tumor appearance on H and E showing a spindle and epithelial cell components with areas of necrosis.

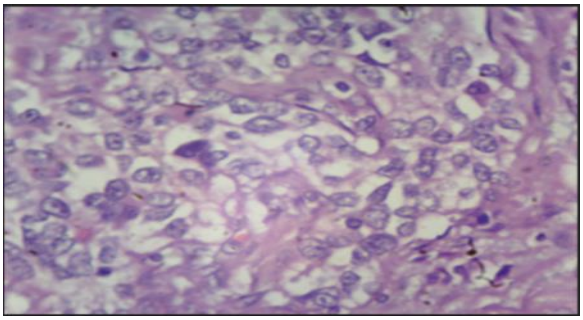

Figure 2: Tumor appearance on H and E showing spindle and epithelial cell tumor with areas of necrosis, with scattered multinucleate cells.

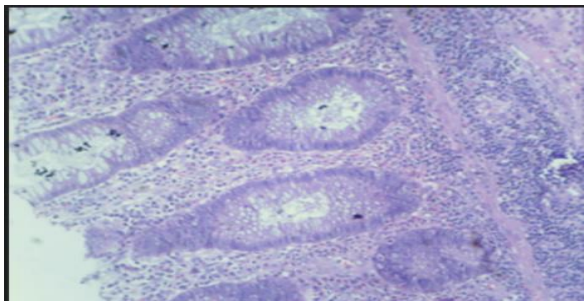

Figure 3: Tumor appearance on H & E-showing intact mucosal wall with villi.

After excluding GIST, spindle cell sarcoma, mesothelioma, the final diagnosis of metastatic primary SC colon was made.

Patient underwent palliative chemotherapy with CAPEOX 6 cycles (capecitabine- oxaliplatin). She tolerated chemotherapy well without any Grade 3 side effects, completed treatment in May 2019. Post chemotherapy, PET CT showed complete metabolic response. Now the patient is on regular follow up and is clinically asymptomatic.

DISCUSSION

Sarcomatoid carcinoma is a rare tumor exhibiting features of both epithelial and mesenchymal-like differentiation.[5] The biological behaviour of SC is like that of other high-grade carcinomas of analogous stage and site. Sarcomatoid carcinomas have an aggressive clinical course, often present with symptoms or signs related to distant metastases.[3]

Our patient's age was 51 years, which corresponds to the observations in other reported cases (ranges from 40-85 years).[4] Site of the disease and stage at presentation appears to be important prognostic factors where upper GI tract carcinosarcomas slightly do better than lower GI, probably due to earlier presentations. Our patient had a sigmoid colon carcinosarcoma with omental deposits at presentation, but she did well when compared to other metastatic lower GI colonic carcinosarcomas reported.[4]

On histological examination, in our case, a carcinoma and sarcoma differentiation observed together in the same way as other cases reported. Immunohistochemistry helps in narrowing down the diagnosis particularly in biphasic tumors such as carcinosarcomas.[6] The most commonly observed pattern of staining is reactivity in the adenocarcinomatous component to the epithelial markers, CK 20 and CEA and the sarcomatous cells frequently stain positively for vimentin, desmin and SMA.[7] IHC done on our patient's block showed Pan CK and vimentin positive and negative for CD117, DOG1, CD34, SMA, calretinin suggesting sarcomatoid carcinoma colon.

Carcinosarcomas are treated like general colorectal cancers.[4,8,9,10] Together with early diagnosis, radical resection is effective in management of non-metastatic disease.[4] In addiction to surgical treatments, adjuvant therapies, chemotherapy (5-flourouracil, leucovorin, doxorubicin and cisplatin) and radiation therapy have been attempted, but their effectiveness has not proven yet. Only one metastatic case has been reported till date which was treated with 5 FU (5 fluorouracil) based chemotherapy regimen and the reported disease-free interval was more than one year.

CONCLUSION

Sarcomatoid carcinoma of colon is a rare tumor with extremely bad prognosis with a mean overall survival period of less than one year. Usually, carcinosarcomas are treated as per general colorectal cancers. The clinical course is usually aggressive with rapid distant metastases. Aggressive treatment and comprehensive follow up may improve the clinical outcome. However, our patient, though metastatic at presentation, responded well to the conventional chemotherapy and showed complete resolution of the disease on PET CT. She is disease free

till date. Further studies and collection of cases will be needed to establish proper therapeutic guidelines.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Weidner N, Zekan P. Carcinosarcoma of the colon. Report of a unique case with light and immune-histochemical studies. Cancer. 1986;58(5):1126–30.
2. Nakao A, Sakagami K, Uda M, Mitsuoka S, Ito H. Carcinosarcoma of the colon: report of a case and review of the literature. J Gastro-enterol. 1998;33(2):276-9.
3. Kim JH, Moon WS, Kang MJ, Park MJ, Lee DG. Sarcomatoid carcinoma of the colon: a case report. J Korean Med Sci. 2001;16(5):657-60.
4. Bertram P, Treutner KH, Tietze L, Schumpelick V. True carcinosarcoma of the colon: case report. Langenbecks Arch Chir. 1997;382(3):173-4.
5. Staroz F, Botton A, Potet F. Malignant tumors of the colon with two components (carcinosarcoma): report of a case. Ann Pathol. 1995;15(6):457-8.
6. Isimbaldi G, Sironi M, Assi A. Sarcomatoid carcinoma of the colon: report of the second case with immunohistochemical study. Pathol Res Pract. 1996;192(5):483-7.
7. Gentile R, Castellaneta A. Carcinosarcoma of the colon, one or two tumors? Patholo-gica. 1997;89(1):62–8.
8. Aramendi T, Fernandez-Acenero MJ, Villanueva MC. Carcinosarcoma of the colon: report of a rare tumor. Pathol Res Pract. 2003;199(5):345-8.
9. Tsekouras DK, Katsaragakis S, Theodorou D, Kafiri G, Archontovasilis F, Giannopoulos P, et al. Rectal carcinosarcoma: a case report and review of literature. World J Gastroenterol. 2006;12(9):1481-4.
10. Ambrosini-Spaltro A, Vaira V, Braidotti P, Rovati MP, Ferrero S, Bosari S. Carcinosarcoma of the colon: report of a case with morphological,

Cite this article as: Chundru S, Nandennavar M, Kapurmath SV, Angadi V. Sarcomatoid carcinoma of the colon: A rare diagnosis. Int J Res Med Sci 2021;9:1209-11.